



Materials Declaration Form

IPC Form Type *	1752 Distribute	Version	2
Sectionals *	Material Info Manufacturing Info	Subsectionals *	A-D
* : Required Field			

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2015-06-05
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Authorized Representative *	Rossana Bonaccorso	Representative Title	IPD MD Champion
Representative Phone *	Refer to Supplier Comment section	Representative Email *	Refer to Supplier Comment section
Supplier Comment	Online Technical Support - STMicroelectronics : http://www.st.com/web/en/support/support.html		

Uncertainty Statement

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Legal Statement

Supplier Acceptance *	true	Legal Declaration *	Standard
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Legal Statement

Supplier certifies that it gathered the provided information and such information is true and correct to the best of its knowledge and belief, as of the date that Supplier completes this form. Supplier acknowledges that Company will rely on this certification in determining the compliance of its products. Company acknowledges that Supplier may have relied on information provided by others in completing this form, and that Supplier may not have independently verified such information. However, in situations where Supplier has not independently verified information provided by others, Supplier agrees that, at a minimum, its suppliers have provided certifications regarding their contributions to the part(s), and those certifications are at least as comprehensive as the certification in this paragraph. If the Company and the Supplier enter into a written agreement with respect to the identified part(s), the terms and conditions of that agreement, including any warranty rights and/or remedies provided as part of that agreement, will be the sole and exclusive source of the Supplier's liability and the Company's remedies for issues that arise regarding information the Supplier provides in this form.

Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
	HSDZ*Z02Q02Q	A	SHENZHEN B/E	2015-06-05
Amount	UoM	Unit type	ST ECOPACK Grade	
1900	mg	Each	ECOPACK2	

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
NAC	NAC	NAC		
bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
NAC	Tin (Sn), matte	Copper Alloy		

Package Designator	Size	Nbr of instances	Shape	
SIP	10, 9.1, 4.5	3	THROUGH HOLE	
Comment	Package: TO 220 AB NON ISOL, MD valid for CP:STPS20L25CT			

QueryList : ROHS directive 2011/65/EU _ July 2011	
Query	Response
1 - Product(s) meets EU RoHS requirement without any exemptions	false
2 - Product(s) meets EU RoHS requirements except lead in solder and this usage may qualify under the lead in solder '7b' exemption (other selected exemptions may apply)	false
3 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)	true
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions	false
5 - Product(s) is obsolete, no information is available	false
6 - Product(s) is unknown, no information is available	false
Exemption Id.	Description
7a	Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead)

QueryList : REACH-17th December 2014				
Query				Response
1 - Product(s) does not contain REACH Substances Of Very High Concern above the limits per the definition within REACH				true
CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application	ppm in product

Material Composition Declaration						Mfr Item Name	HSD2*Z02Q02Q					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Die or Dies (choose)	Other inorganic materials	14.207	mg	supplier	die	Silicon (Si)	7440-21-3		13.746	mg	967551	7235
				supplier	metallization	Aluminium (Al)	7429-90-5		0.284	mg	19990	149
				supplier	Passivation	Silicon Oxide	7631-86-9		0.056	mg	3942	29
				supplier	back side metallization	Titanium (Ti)	7440-32-6		0.007	mg	493	4
				supplier	back side metallization	Gold (Au)	7440-57-5		0.020	mg	1408	11
				supplier	back side metallization	Nickel (Ni)	7440-02-0		0.094	mg	6616	49
Leadframe	Copper & its alloys	1253.179	mg	supplier	alloy	Copper (Cu)	7440-50-8		1251.376	mg	998561	658619
				supplier	alloy	Iron (Fe)	7439-89-6		1.253	mg	1000	659
				supplier	alloy	Iron Phosphide (FeP)	26508-33-8		0.376	mg	300	198
				supplier	metallization	Nickel (Ni)	7440-02-0		0.173	mg	138	91
				supplier	metallization	Phosphorus (P)	12185-10-3		0.001	mg	1	1
Soft solder	Solder	12.778	mg	JIG - R	solder	Lead (Pb)	7439-92-1	7a-Lead in high me	12.203	mg	955001	6423
				supplier	solder	Silver (Ag)	7440-22-4		0.319	mg	24965	168
				supplier	solder	Tin (Sn)	7440-31-5		0.256	mg	20034	135
Bonding wires	Other inorganic materials	4.050		supplier	wire	Aluminium (Al)	7429-90-5		4.050	mg	1000000	2132
Encapsulation	Other Organic Materials	609.424	mg	supplier	mold compound	Silica, vitreous	60676-86-0		530.199	mg	870000	279052
				supplier	mold compound	Epoxy resin	Proprietary		60.942	mg	99999	32075
				supplier	mold compound	Phenol resin	Proprietary		15.236	mg	25001	8019
				supplier	mold compound	Carbon Black	1333-86-4		3.047	mg	5000	1604
connections coating	Solder	6.362	mg	supplier	solder alloy	Tin (Sn)	7440-31-5		6.362	mg	1000000	3348